

REMARKS

Applicant has canceled independent claim 22 and has added independent claim 25 and therefore no further fee is needed.

The Examiner has rejected claims 4, 6 and 22 under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 4,916,938 (Aikin). In support thereof the Examiner identifies the control volume of Aikin as the area between the two valve rod seals (26, 34, 36) and says that the fluid of Aikin is a working fluid which is controlled by the valve. The control volume of Aikin is the stuffing box 24 which includes the packing 26.

Applicant has added new independent claim 25 to a method for determining at the seal of a valve or valve leaks of a working medium controlled by the valve. The method:

determines in a control volume between a first valve-rod seal and a second valve-rod seal, if appropriate as a function of time, the pressure of the working medium controlled by the valve that leaks into said control volume;

uses the determined pressure to calculate the leak flow rate of said working medium leaking into said control volume;

uses the value obtained for the leak flow rate to draw conclusions as to whether the seal is sealed, and in this way a seal replacement time is determined; and

measures, after the control volume is discontinuously opened or emptied and then closed again, the pressure rise of the working medium controlled by the valve that leaks into the control volume.

Aikin describes a valve leakage inspection, testing and maintenance process which uses a high pressure fluid, such as water, injected into the stuffing box 24 of the valve 10 through a nipple 40 to apply a hydraulic force to the packing 26 inside the valve (see Figs. 1 and 2 and column 4, lines 10 et seq.). The high pressure water is used to check the integrity of the back seat surfaces 34, 36 by observing the pressure decay rate of the injected water (see column 4, lines

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65 et seq.). The same injected water can be used to lift the entire packing set (see column 5, lines 4 et seq.). Thus in Aikin the pressure measurement is that of the water injected into the stuffing box 24 (the control volume identified by the Examiner is the stuffing box 24) that leaks out of the stuffing box and not of the working medium controlled by the valve that leaks into in a control volume between a first valve-rod seal and a second valve-rod seal as is taught and claimed by applicant in new independent claim 25.

Claim 4 is amended herein to depend on new independent claim 25 and claim 6 depends on claim 4. For the reasons given above applicant submits that the rejection of claims 4 and 6 under 35 U.S.C. 102(b) as anticipated by Aikin no longer pertains.

The Examiner said that claims 5, 7-8 would be allowable if rewritten in independent form and included all of the limitations of the base claim and any intervening claim. Claims 5, 7-8 each depend on a claim that depends either directly or through one or more intermediate claims on new independent claim 25.

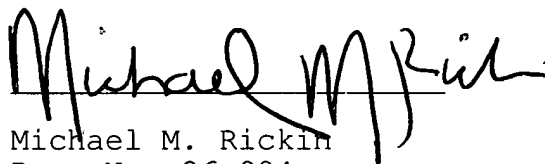
Entry of this Amendment is respectfully requested as it will place this application in a condition for allowance.

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Following Page*****

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Respectfully submitted,

Date: 9/23/03



Michael M. Rickin
Reg. No. 26,984
Attorney for Applicant
ABB Inc.
29801 Euclid Avenue
Wickliffe, OH 44092-2530

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Respectfully, Debra A. Rietze

Date: September 23, 2003